

# **Cloud Computing, Open Science, Data Analytics Towards new research paradigms for Bavarian dialectology in using advanced research infrastructures DARIAH-Competence Centre in a nutshell**

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Dialects, much like indigenous languages, are most typically native to certain geographic regions, are spoken by its native community and are, in times of globalization, under considerable threat of diminishing as standard languages are nowadays predominantly found in the public domain as a means of communication.

In this paper we elaborate on the possibilities digital means and infrastructures offer in revealing and giving access to unique traditional cultural knowledge contained in a non-standard language resource on the example of the Bavarian dialects in Austria, Europe, originating in the early 1900s. Its content has to-date been edited partially as a five volume dictionary (WBÖ), and its digitized contents partially as an online database (DBÖ) together with other folklore literature.

In this study we focus on exploitation of advanced research infrastructures to discover cultural diversity, namely within the European project framework of EGI ENGAGE (Engaging the research communities with open science commons) in the DARIAH-Competence-Centre (DARIAH-CC). The DARIAH Competence Centre (DARIAH-CC) is one of 8 competence centres established during the EU H2020 EGI-Engage project. The goal of the DARIAH-CC is not only to provide generic solutions and services for all researchers and scholars coming from Arts and Humanities but rather provide concrete solutions and services for particular research domains or groups, one of which is (dialectal) lexicography. Thus, the DARIAH-CC provides a set of specific cloud-based services and solutions tailored for the lexicographers' needs.

First, we introduce into DARIAH-CC in a nutshell, highlighting mainly tools, services and resources relevant for dialectal lexicography. The authors introduce the overall architecture as well as main services like cloud computing, semantic search engine, CDStar and optical text recognition.

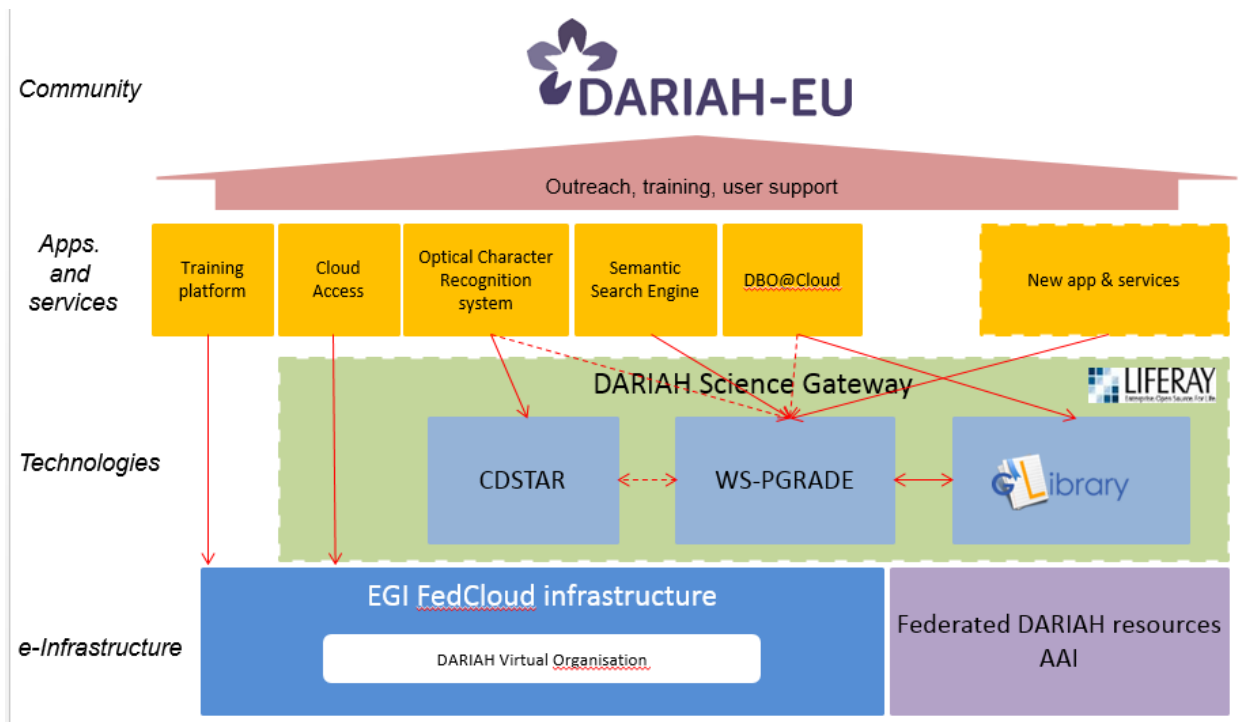


Figure 1: Architecture of DARIAH-CC

Second, we mainly discuss workflows and processes, emphasizing relevant steps towards joint understanding and collaboration.

- 1) Multidisciplinarity : How are communication and knowledge exchange processes designed? We address how we meet challenges and risks of the process.
- 2) Multilinguality / Multiculturality : Collaboration in an European team with different cultural background and different languages, most of them Non-Bavarian dialect speakers: we address how we meet this challenge.
- 3) Modularity: Transforming a 100+ years project into certain pieces to be a case study for a European project. Risks of different time awareness and project schedules.

We discuss added value for our research of projects like EGI ENGAGE – DARIAH-CC (and follow ups) against the background of new research paradigms like Open Science, Cloud Computing and Data Analytics. In doing so we would like to bridge the gap between technical and social innovations along the way of digital transformation.

Concluding we would like to introduce our vision of an organizational design, offering spaces for experiments and innovation for long term projects and needs of future infrastructures to meet those aims.